ABSTRACT

There is obtained a material of a positive electrode for a secondary lithium-ion cell having high cycle durability and high safety in high-voltage and high-capacity applications, which is a particulate positive electrode active material for a secondary lithium-ion cell represented by a general formula, $Li_aCo_bA_cB_dO_eF_f$ (A is Al or Mg, B is a group-IV transition element, $0.90 \leqq a \leqq 1.10$, $0.97 \leqq b \leqq 1.00$, $0.0001 \leqq c \leqq 0.03$, $0.0001 \leqq d \leqq 0.03$, $1.98 \leqq e \leqq 2.02$, $0 \leqq f \leqq 0.02$, and $0.0001 \leqq c + d \leqq 0.03$), where element A, element B and fluorine are evenly present in the vicinity of the particle surfaces.